Big Data Visual Analytics

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The growth of digital data is tremendous. Any aspect of life and matter is being recorded and stored on cheap disks, either in the cloud, in businesses, or in research labs. We can now afford to explore very complex relationships with many variables playing a part. But for this we need powerful tools that allow us to be creative, to sculpt this intricate insight formulated as models from the raw block of data. High-quality visual feedback plays a decisive role here. In this talk I will discuss various platforms we have developed over the years to make the exploration of large multivariate data more intuitive and direct. These platforms were conceived in tight collaborations with domain experts in the fields of climate science, health informatics, and computer systems.

Bio: Klaus Mueller received a PhD in computer science from the Ohio State University. He is currently a professor in the Computer Science Department at Stony Brook University and is also an adjunct scientist in the Computational Science Initiative at Brookhaven National Labs. His current research interests are visualization, visual analytics, data science, medical imaging, and high-performance computing, He won the US National Science Foundation CAREER award in 2001 and the SUNY Chancellor Award in 2011. Mueller has authored more than 170 peer-reviewed journal and conference papers, which have been cited more than 6,500 times. He is a frequent speaker at international conferences, has participated in numerous tutorials on various topics, and was until recently the chair of the IEEE Technical Committee on Visualization and Computer Graphics. He is also back on the editorial board of IEEE Transactions on Visualization and Computer Graphics and he is a senior member of the IEEE. For more information, please see http://www.cs.sunysb.edu/~mueller